



US Army Corps  
of Engineers®  
New England District

# Project Information Sheet

## ASSABET RIVER SEDIMENT AND DAM REMOVAL STUDY MASSACHUSETTS

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696 Virginia Road, Concord Massachusetts, 01742-2751

1. **Project:** The study purpose is to identify and assess alternatives for reducing internal phosphorus recycling from sediments through sediment removal, sediment treatment, or dam removal under the Planning Assistance to States (PAS) Program (Section 22).
2. **Location of Project:** The Assabet River is about 33 miles from its headwaters in Westborough, Massachusetts to its confluence with the Sudbury River in Concord, Massachusetts. It flows through Marlborough, Shrewsbury, Westborough, Northborough, Hudson, Maynard and Concord, Massachusetts.
3. **Project Description:** The pollutant of concern is phosphorus, which is causing excessive production of floating and rooted aquatic macrophytes. This results in Massachusetts Water Quality Standards violations for eutrophication and aesthetics. Phosphorus loadings originate from both point sources and non-point sources. Point sources include four publicly owned wastewater treatment facilities (POTWs), while non-point sources include internal recycling of phosphorus from sediments and stormwater runoff. There is a fifth small institutional wastewater treatment facility on the river at MCI Concord.

The U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MADEP) have developed a Total Maximum Daily Load (TMDL) that requires reductions of phosphorous loadings from the four POTWs that discharge to the river and a 90 percent reduction in sediment phosphorous load in order to achieve water quality compliance.

Currently the NPDES permits drafted for the POTWs in Westborough, Marlborough, Hudson, and Maynard require facility upgrades to achieve 0.1 mg/l of effluent phosphorus (seasonal limit) by April 2009. The current NPDES permit limits (seasonal) allow for phosphorus levels to 0.75 mg/l in effluent.

4. **Other:** The study will extend from the A-1 Impoundment in Westborough to the confluence with the Concord River in Concord, Massachusetts, about 32 river miles. (See Figure 1.) The river is impounded by nine dams, which are from upstream to downstream:
  1. (A-1) impoundment, Westborough
  2. **Route 20 Dam (Aluminum City Dam), Northborough**
  3. **Allen Street Dam, Northborough**
  4. Tyler Dam (run of river, except during flood flows), Marlborough

5. **Hudson Dam at Route 85, Hudson**
6. **Gleasondale Dam, Stow**
7. **Ben Smith Dam, Maynard**
8. **Powdermill Dam, Acton**
9. Dammon Mill Dam, West Concord (breached but does back up water)

The focus of the study efforts will be the six highlighted dams and impoundments. The A-1 impoundment and the Tyler Dam provide for flood control in the river and will not be considered for removal. In addition, although the breached Dammon Mill Dam in West Concord may still be a velocity barrier to fish passage, further removal of remaining dam features will not be specifically addressed in this evaluation study.

5. **Sponsor:** The study is being performed under a cost sharing agreement with MADEP. The MADEP has entered into a Memorandum of Understanding with the six Assabet River Consortium communities (Marlboro, Shrewsbury, Westborough, Northborough, Hudson, and Maynard) for the sediment study. The MOU establishes a Study Coordination Team (SCT) made up of twelve members, six from the communities and six selected by MADEP including Organization of the Assabet River (OAR).

6. **Schedule:**

<b>PHASE I TASKS</b>	<b>DESCRIPTION</b>	<b>STATUS</b>
1.	Develop Work Plan	Done
2.	Dam and Impoundment Real Estate Information	Internal Draft Complete
3.	Initial Dam Inventory and initial Sediment Disposal Evaluation	Ongoing – 80% complete
4.	Formulation of Alternatives to be Evaluated	Ongoing
5.	Identify Cultural Resources	Internal Draft Complete
6.	Initial Biological Evaluation and Identification of Special Status Species	Ongoing - 90% complete
7.	River Modeling Strategy for Sediment Study	Delivery Order with CDM being finalized
<b>PHASE II TASKS</b>		
8.	Sediment Phosphorus Research	5% complete
9.	River Modeling	not started
10.	Topographic and Bathymetric Survey work	not started
11.	Geotechnical Engineering Evaluation of Alternatives	not started
12.	Habitat Evaluation and Special Status Species	not started
13.	Evaluate Cultural Resources	not started
14.	Planning Level Civil Engineering Layout	not started
15.	Planning Level Structural Review	not started
16.	Planning Level Cost Estimates	not started

17.	Evaluate Real Estate Requirements	not started
18.	Economic and Financial Considerations	not started
19.	Comparison of Alternatives and Identification of Recommended Plan	not started
20.	Draft and Final Reports	not started
<b>PHASE III TASKS</b>		
21.	Flood Plain Mapping for Proposed Project	not started
ALL PHASES		
22.	Technical Advisory Group	not started
23.	Study Management, Meetings, and Status Reports	20% complete
24.	Outreach Program, Agency Coordination Meetings, and Social Acceptance	30% complete
25.	GIS Mapping - Phase I	90% complete
	GIS Mapping - Phase II	not started

7. Costs: The total cost of the effort is currently estimated at \$1,000,000, which is being cost shared equally between the Corps and the MADEP.
8. Contact Person: The Corps New England District contact is the Project Manager, Ms. Barbara Blumeris, at [barbara.r.blumeris@usace.army.mil](mailto:barbara.r.blumeris@usace.army.mil).